Compliance with Leafy Green Marketing Agreement Metrics: What Do You Need to Do?

Prerequisite Requirements	√	Location of Documentation
Have a copy of the document entitled *Commodity Specific Food Safety Guidelines for the Production and Harvest of Lettuce and Leafy Greens ("Guidance")* available for review.		
Prepare a list of all growers currently being used and update it appropriately. This list should be available for review.		
If appropriate, comply with the registration requirement as specified in *The Public Health Security and Bioterrorism Preparedness and Response Act of 2002* . Documentation of registration should be available for review.		
Develop a SOP that address all of the issues found in the *"Guidance"* and other GAPs and have it available for review. It should address the following areas:		
Water		
Soil Amendments		
Environmental Factors		
Work Practices		
Field Sanitation		
Designate an employee to implement and oversee the food safety program, and have their name and contact information available for review.		
Prepare a written Traceback Manual and have it available for review.		
Water Use		
Create a map of all water sources and systems associated with your ranch or production operation		
Check with your laboratory to determine whether your water testing method is approved by U.S. EPA, FDA, AOAC, or other accrediting organization.		
If not, a different method must be used.		
Obtain a sampling protocol that is specific to the method used.		
Begin a water quality monitoring (sampling and testing) program.		
Five samples must be used to calculate a rolling geometric mean; samples must be taken at least 18 hours apart.		
It would be advisable not to irrigate with water until the geometric mean has been calculated		
A sample should be collected at the source within 60 days of the beginning of the season. Additional samples should be collected within the distribution system as close to the point of use as practicable. A rolling geometric mean should be calculated for each discrete distribution system. (Samples and test results from different (multiple) sources connected to a common distribution system may be utilized to calculate the rolling geometric mean.)		
For foliar applied water, if the geometric mean is higher than 126 MPN/100mL or a single sample exceeds 235 MPN/100mL, then remediation and mitigation strategies must be employed as described in the *"Guidance"* (i.e., initiate additional testing and sanitary survey).		
Documentation of all mitigation and additional testing must be retained for at least two years.		
For non-foliar applied water, if the geometric mean is higher than 126 MPN/100mL or a single sample exceeds 576 MPN/100mL, then remediation and mitigation strategies must be employed as described in the *"Guidance"* (i.e., initiate additional testing and sanitary survey).		
Documentation of all mitigation and additional testing must be retained for at least two years.		

If water is in compliance, it must be retested monthly and the geometric mean recalculated after each test.		
All test result documentation must be maintained for at least two years.		
Post-harvest water including water used in equipment cleaning processes, must be treated to the microbial equivalent of drinking water, and the residual disinfectant, pH, or ORP must be monitored as described by the *"Guidance"* .		
If water is found not to be in compliance, appropriate additional testing and mitigation procedures must be initiated as described in the *"Guidance"* .		
Documentation of the monitoring and/or disinfection methods used must be available for review		
All monitoring documentation must be maintained for at least two years.		
Records must be able to document the field where water was used, the sample size, frequency, method/procedure used, the person taking the sample, location taken, and laboratory that analyzed the sample.		
Soil Amendments		
Determine whether or not raw manure has been applied to the field in the last year.		
Is so, do not plant leafy greens in that production field.		
Check with your soil amendment provider to determine whether they have SOPs that comply with turning times, curing times, and process validation requirements as specified in the *"Guidance"* .		
Documentation of all these areas must be available for review.		
Check with your soil amendment provider to determine whether testing results and the sampling plan comply with the *"Guidance"* .		
Documentation of these tests results and the sampling plan must be available for review.		
If soil amendment product does not contain animal manure, have a Letter of Guaranty or comparable documentation available for review.		
Check with your non-synthetic crop treatment provider to determine whether they have SOPs that comply with turning times, curing times, and process validation requirements as specified in the *"Guidance"* .		
Documentation of all these areas must be available for review.		
Check with your non-synthetic crop treatment provider to determine whether testing results and the sampling plan comply with the *"Guidance."*		
Documentation of these tests results and the sampling plan must be available for review.		
Application intervals		
Application intervals for all soil amendments and non-synthetic crop treatments must be followed		
Documentation of application intervals must be available for review.		
Records		
Records must document the soil amendment or crop treatment, the supplier, the testing laboratory, the test method, the date of application, and the date of harvest		
Environmental Assessments		
An environmental assessment must be conducted sometime prior to the first seasonal planting.		
Water		
All water sources and associated distribution systems must be clearly identified.		
A sanitary survey must be completed for each water source.		
Adjacent Land Use		
Determine whether there are compost operations within 400' of the crop edge.		

If there are, check to see if topographical or climate features indicate that 400' is too short a distance.		
If there are, make sure corrective measures are in place and documented		
Determine whether there is a CAFO within 400' of the edge of the crop.		
If there are, check to see if topographical or climate features indicate that 400' is too short a distance.		
If there are, make sure corrective measures are in place and documented.		
Determine whether there are non-synthetic soil amendments stored within 400' of the edge of the crop.		
If there are, check to see if topographical or climate features indicate that 400' is too short a distance.		
If there are, make sure corrective measures are in place and documented		
Determine whether there are grazing lands/domestic animals within 30' from the edge of the crop.		
If there are, check to see if topographical or climate features indicate that 30' is too short a distance.		
If there are, make sure corrective measures are in place and documented.		
Determine whether there are ends of a septic leach field (home or other building) within 30' of the edge of the crop.		
If there are, check to see if topographical or climate features indicate that 30' is too short a distance.		
If there are, make sure corrective measures are in place and documented		
Determine whether there are any well heads within 200' from untreated manure.		
If there are, check to see if topographical or climate features indicate that 200' is too short a distance.		
If there are, make sure corrective measures are in place and documented.		
Determine whether there are surface water sources on the ranch separated from untreated manure (raw manure and partially composted manure) as follows:		
100' for sandy soil with a slope <6%		
200' for loamy or clay soil with a slope <6%		
300' for all soils with slopes >6%		
Prepare documentation of all distances.		
Determine whether there is sufficient buffer distance maintained between the crop edge and riparian areas.		
Is this distance based on a risk assessment or authoritative citation?		
Prepare documentation of these distances		
Animal Activity		
Document the following parameters during the assessment:		
Animal migration patterns/presence of animals		
Fencing in disrepair		
Animal feces		
If there are any deficiencies, take corrective actions to correct them.		
Prepare documentation to show that actions were implemented		
Established an on-going program to monitor the effectiveness of these actions.		
Recent Field History		
Document and identify any of the following issues:		
History of flooding within the last 60 days.		
History of grazing on the crop land within the last 1 year.		
History of hazardous activity including but not limited to CAFO, municipal waste, toxic waste, landfill, etc.		

If any of the above were identified, take appropriate remedial activities and document them.		
Assessment Documentation		
Date the assessment.		
Identify the individual who conducted the assessment.		
Identify the specific growing blocks associated with the assessment.		
Document the Grower name and contact information.		
Pre-Harvest and Harvest Environmental Assessment		
Conduct a pre-harvest assessment within one week of planned harvest; conduct a harvest assessment during harvest. Both assessments follow the same outline below.		
Animal Intrusion		
Document any evidence of animal intrusion into the crop field noted (in the form of animals present, animal tracks, feces/urine evidence or plant feeding).		
If there is evidence, complete a food safety assessment completed.		
Identify the individual who conducted the assessment identified.		
Date the assessment.		
Identify and document any remedial actions		
If there is evidence and the field is harvested, prepare documentation to show which remedial actions were followed.		
Prepare documentation which fully delineates the animal intrusion and have it available for review		
Unusual Events (e.g.: flooding)		
Identify any flooding that has occurred during the crop cycle, and whether or not product has come into contact with floodwater.		
If there has been flooding and some of the product in the field has been harvested, maintain a 30' minimum no-harvest buffer zone between the high water mark and harvested areas.		
Prepare documentation of the incident and buffer zone employed and have it available for review.		
If any other type of contamination event occurred, complete a food safety assessment.		
Identify the individual who conducted the assessment.		
Date the assessment.		
Formulate and document any remedial actions		
If harvest proceeded, document whether or not remedial actions were followed, and identify the type of remedial actions.		
Potential contamination materials (i.e.: compost pile, glass, paper, etc.)		
Look for evidence that materials that could potentially contaminate the crop have moved into adjacent fields.		
If so, conduct a food safety assessment completed.		
Identify the individual who conducted the assessment.		
Document the date of the assessment.		
Document any remedial actions.		
If there was evidence and harvest proceeded, document whether or not remedial actions were followed, and identify the type of remedial actions.		
Unexpected Adjacent Land Activity		

Document any changes to the food safety status of the adjacent land since the pre-season (or pre-harvest) assessment was conducted.		
If there have been changes, conduct a food safety assessment.		
Identify the individual who conducted the assessment.		
Document the date of the assessment.		
Document any remedial actions.		
If there were changes and harvest proceeded, document whether or not remedial actions were followed, and identify the type of remedial actions.		
Worker Hygiene and Sanitary Facilities		
Document any evidence that worker hygiene rules have been violated during the crop cycle.		
If so, conduct a food safety assessment completed.		
Identify the individual who conducted the assessment.		
Document the date of the assessment.		
Document any remedial actions.		
If there was evidence and harvest proceeded, document whether or not remedial actions were followed, and identify the type of remedial actions.		
Assessment Documentation		
Date the assessment.		
Identify the date of planting.		
Identify the date of expected harvest (or the date of harvest).		
Identify the individual who conducted the assessment.		
Identify the specific growing blocks associated with the assessment.		
Identify the commodity to be harvested.		
Document the Grower name and contact information.		
Work Practices		
General Requirements		
Prepare a written policy for all employees and all visitors to the field location which describes the required hygiene rules. The policy should address:		
Sanitary Facilities		
Field Worker Practices (GMP's, GHP's, etc.)		
Worker Health Practices		
Ensure that potable water is available to all workers.		
Sanitary Facilities		
Prepare a Field Sanitary Facility Program and have documentation available for review. The Program should address:		
The number, condition, and placement of field sanitation units (these should comply with applicable state and/or federal regulations).		
Sanitary facilities should be readily accessible (proximate) to the work area.		
Sanitary facilities should be maintenance daily and documentation of this maintenance should be available for review.		

Sanitary facilities should have sufficient consumable supplies (i.e.: hand soap, water, paper towels, toilet paper, etc.).		
Post readily understandable signs to instruct employees on how to wash their hands before beginning or returning to work.		
Clean and service field sanitation facilities on a scheduled basis and at a location that minimizes the potential risk for product contamination.		
Place sanitary facilities so that there is minimum impact on the crop in the field.		
Minimize Leaks and/or Spills		
Service Accessibility		
Prepare a document response plan in the event of a major leak and/or spill.		
Field Worker Practices (GMPs, GHPs, etc.)		
Prepare a Written Worker Practices Program and have it available for review		
Employee Work Rules		
Train workers in proper sanitation and hygiene practices.		
Workers should wash hands before beginning or returning to work.		
Separate areas for smoking, eating and drinking that are away from production must be designated.		
Workers should use pre-harvest and/or post harvest application materials properly.		
Remove improperly stored personal items that are observable in the field.		
Require proper head and facial hair restraints.		
Require aprons and other food safety apparel.		
Require use and sanitizing of gloves.		
Require the removal of visible jewelry (rings, bracelets, necklaces, body piercings, etc.) prior to the start of work.		
Require removal of objects from pockets.		
Require proper storage of clothing and personal items.		
Properly clean, sanitize and store hand harvest equipment (knives, scythes, etc).		
Worker Health Practices		
Prepare a Written Worker Health Practices Program		
Employee Work Rules:		
Prohibit workers with diarrheal disease or symptoms of other infectious disease from handling fresh produce.		
Prohibit workers with open cuts or lesions from handling fresh produce.		
Employees with injury or illness must follow designated procedures.		
Follow procedures for proper handling/disposition of produce or food contact surfaces that have come into contact with blood or other body fluids.		
Field Sanitation		
General Requirements		
Prepare a written policy for all employees and all visitors to the field location which describes the required SOPs for field sanitation. The policy should address the following:		
Field Activities		
Harvest Activities		
Field Activities		
The Written Field Activity SOP should address the following:		

Cross contamination by farming equipment that comes into contact with raw manure, untreated compost, waters of unknown quality, wildlife or domestic animals or other potential sources.		
If there's cross contamination, the SOP should appropriately restrict the use or require a documented cleaning and sanitation program of the equipment.		
Cleaning/sanitation is required. Records of the cleaning/sanitation must be available for review.		
Proper agrochemical storage and handling.		
Procedure for field debris removal (drip tape, plastic mulch, irrigation fittings, sticks and woody plant material, etc.).		
Provide appropriate refuse containers for worker trash.		
Harvest Activities		
Prepare a Written Harvest Activity SOP that addresses the following:		
Assign a specific individual with food safety responsibility for harvesting.		
Prepare a daily food safety harvest assessment and have it available for review.		
Clearly identify the specific growing blocks associated with the assessment.		
Prepare a SSOP of Harvest Equipment that addresses the following:		
Frequency of cleaning and sanitation.		
Chemical usage and record keeping.		
Specific equipment cleaning instructions.		
Regulate chemical storage		
Ensure all chemical storage containers are labeled appropriately		
Documentation of sanitation verification		
Conduct of daily inspections		
Periodic microbial swabs or other equivalent indicators		
Prepare a SOP for Handling and Storage of Product Containers that addresses the following.		
Over night storage.		
Contact with the ground.		
Container assembly (RPC, fiber bin, plastic bin, etc.).		
Damaged containers.		
Containers use.		
Prepare SOP for Sanitary Operation of Equipment.		
Address broken glass.		
Address spills and leaks.		
Address inoperative water sprays.		
Prepare SOP for Harvest Equipment Protection.		
Ensure overnight equipment storage.		
Ensure road transport of equipment.		
Document corrective actions for all of the above.		
Field Observations		
Water Use		
Make certain that all active and/or inactive water sources are documented.		
Make certain to maintain all water distribution systems.		
Avoid any signs of visual contamination of water sources and distribution systems.		
Soil Amendments		

Document all use of soil amendments.		
Only apply soil amendments as allowed under the CSGLLC.		
Store soil amendments appropriately.		
Environmental Factors		
Monitor and remediate any signs of fecal contamination periodically.		
Monitor and remediate for any sign of livestock, poultry, significant wildlife and/or domestic animals in the field.		
Comply with distances as outlined in Sections 2.3 through 2.10 of Environmental Factors.		
Maintain and repair all animal barriers (fences, gates, grates, etc.).		
Work Practices		
Do not allow employees to eat, chew tobacco or smoke in actively harvested areas.		
Ensure employees wash their hands after restroom usage, work breaks, or any return to work.		
Ensure sanitary facilities that are clean and operational.		
Adequately stock sanitary facilities with disposable supplies.		
Ensure employees are properly storing personal items in the field.		
Ensure employees use the restrooms.		
Ensure employees do not have uncovered wounds, boils or cuts.		
Ensure employees do not have symptoms of infection or contagious diseases.		
Field Sanitation		
Remove excessive non-vegetative debris in the field.		
Only use chemicals in an appropriate and supervised manner in the field.		
Do not allow (or remediate any) equipment leaks and spills on equipment in the field.		
Sanitize any farm equipment that may have come in contact with raw manure, untreated compost, waters of unknown quality, wildlife or domestic animals.		